

Log R-86 Not 1280 ReL R-76-48-171
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: August 20, 1976

Forwarded to:

Mr. James F. Shugrue
State Transportation Commissioner
Connecticut Department of Transportation
24 Walcott Hill Road
Wethersfield, Connecticut 06109

SAFETY RECOMMENDATION(S)

R-76-48 and 49

Mr. D. L. Yunich
Chairman
Metropolitan Transportation Authority
1700 Broadway
New York, New York 10019

As part of the National Transportation Safety Board's continuing investigation of the collision of Consolidated Rail Corporation (ConRail) Commuter train No. 1994 with commuter train 1992 at 6:27 p.m. on July 13, 1976, in New Canaan, Connecticut, statements were taken from ConRail personnel and from passengers on the trains during the period of August 3 through 5, 1976, at New Canaan. 1/

Testimony indicated that passengers had extreme difficulty after the collision in following the instructions for operating the emergency release mechanisms which opened the side doors of the cars. If a fire had started as a result of the collision or if a significant quantity of smoke had entered the car, it would have been virtually impossible to have read and complied with the instructions.

Each car has two biparting doors on each side at the quarter points. The doors can be operated electrically, either individually or in conjunction with other doors from control points within the train. The doors are mechanically locked in the closed position by operating mechanism, which must be released manually, if electrical power is lost, before the doors can be opened. The doors can be opened electrically from the outside by means of a conductor's key; however, if traction power and battery power are lost, the doors cannot be opened from the outside.

1/ The National Transportation Safety Board's report, which contains the facts, analysis, and conclusions concerning this accident, will be issued in the future.

The emergency release mechanism is housed in a closed compartment beside each set of doors. The cover is secured by two screw-type locks which can be operated by inserting a dime in their slotted heads and by turning the screws. When the cover is opened, the door-operating mechanism and wiring are exposed. Instructions on the inside of the compartment door instruct the reader to:

"Turn On-Off Toggle Switch to Off Position

Move Red Handle at Bottom of Compartment
Firmly in a Direction Away From Door

Door Leaf May Now be Opened by Hand."

The emergency release mechanism is poorly illuminated by the emergency system.

The passengers had difficulties opening the doors because (1) A coin to turn the screws was not readily available, (2) the instructions were difficult to read and understand under the adverse conditions of stress and lighting, and (3) passengers were reluctant to reach into a poorly lighted compartment with a poorly marked mechanism for fear of electrical shock or mechanical injury. The Safety Board's investigation confirmed that these were valid criticisms. The Safety Board also noted that in one of the compartments of the first car of train 1994, the instructions had been mounted upside down.

Although the Safety Board has not completed its investigation, it is obvious that the difficulty of evacuation of passengers from the M-2 cars under emergency conditions represents unacceptable risks. Further, the problems, whose corrections are practical, have been brought to the attention of Federal, State, and local officials before without correction. Therefore, the National Transportation Safety Board recommends that the Connecticut Department of Transportation and the Metropolitan Transportation Authority:

Change the emergency release mechanism for the side doors on the type of cars involved in this accident (M-1 and M-2) so that the doors can be opened easily by passengers under emergency conditions without opening the mechanism's compartment. (R-76-48)
(Class I, Urgent Followup)

Provide means for emergency aid personnel to open the doors from the outside when electrical power is lost. (R-76-49) (Class I, Urgent Followup)

(3)

TODD, Chairman, BAILEY, Vice Chairman, and McADAMS, Member, concurred in the above recommendations. HOGUE and HALEY, Members, did not participate.

Kay Bailey
for

By: Webster B. Todd, Jr.
Chairman